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Filed: September 17, 2003

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In the claims

Please amend the claims as follows:

- 1-9. (canceled)
- 10. (original) A method for treating a patient having a disorder associated with excessive activation of the α -amino-3-hydroxy-5-methyl-4-isooxazoleproprionic acid (AMPA) subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising administering to the patient, in an effective amount to alleviate the symptoms of the disorder, a compound of Formula I:

wherein

R¹, R², R³ and R⁴ are independently

Η,

HO,

R¹¹O-.

halogen (F, Cl, Br),

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 $CF_{3.}$

 $R^{12}CO_{2}$ -,

 $R^{12}O_2C_{-}$

 $R^{12}CO-$.

R¹²CONH-,

R¹²NHCO-,

 $R^{12}NHCO_{2}$ -,

R¹²OCONH-,

 $R^{12}O_2S_{-}$

R¹²OS-, or

 $R^{13}R^{14}N$ -; or

R¹ and R², or R² and R³, or R³ and R⁴ taken together can be

 $-SCH_2S-,$

-SCH₂O-,

 $-OCH_2S$ -,

-SCH₂CH₂S-,

-SCH₂CH₂O-, or

-OCH₂CH₂S-;

wherein at least one of R¹, R², R³ and R⁴ must be a C1-C3-alkylthio group,

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R⁵ and R⁶ are independently

Н.

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl, or

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two

substituents selected from the group consisting of C1-C3-alkyl, halogen (F, Cl, Br),

 $R^{11}O$ -, CF_3 -, $R^{12}O_2S$ -, $R^{12}OS$ -, $R^{12}CO$, $R^{12}CO_2$ -, $R^{12}O_2C$ -, $R^{12}CONH$ -, $R^{12}NHCO$ -,

R¹²NHCO₂-, R¹²OCONH, and R¹³R¹⁴N-; or

R⁵ and R⁶ taken together can be C3-C6-cycloalkyl;

R⁷ is

 $R^{13}R^{14}NCO-,$

 $R^{13}R^{14}NCS-,$

 $R^{13}R^{14}N(CR^{15})$ -,

R¹⁵OCO-,

 $R^{13}CO-$,

R¹³R¹⁴NCH₂CO-,

 $R^{12}O_2C-(CH_2)_{n}-,$

 $R^{13}R^{14}NCO-(CH_2)_{n}-,$

 $NC-(CH_2)_n$ -,

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Н,

C1-C6-alkyl,

C3-C6-alkenyl, or

C3-C6-cycloalkyl; or

R⁶ and R⁷ taken together can be

 $-(CH_2)_mCH_2(R^{13})NCO-,$

 $-(CH_2)_mCH_2OCO$ -, or

 $-(CH_2)_mCH_2CH_2CO-;$

R⁸ and R⁹ are independently

Н,

 $R^{13}R^{14}N_{-}$

 $R^{13}R^{14}N(CR^{15})$ -,

R¹²HNCO-, or

R¹²CONH-;

 R^{10} is

Η,

halogen (F, Cl, Br),

НО,

R¹¹O-,

 $R^{13}R^{14}N-,$

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C1-C3-alkyl,

CF_{3.}

 $R^{12}CO_{2}$ -,

 $R^{12}CO$ -, or

R¹²CONH-;

R¹¹ is C1-C3-alkyl;

R¹² is H or C1-C3-alkyl;

R¹³ and R¹⁴ are independently

Η,

C1-C10-alkyl,

C1-C6-perfluoroalkyl,

C3-C10-alkenyl, or

C3-C6-cycloalkyl; or

R¹³ and R¹⁴ taken together can be C3-C6-cycloalkyl;

R¹⁵ is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;

n is 1 to 6;

m is 0 to 2;

and pharmaceutically acceptable salts thereof;

wherein R⁸ and R⁹ cannot be both be H,

in combination with a pharmaceutically acceptable carrier.

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11. (original) The method of claim 10 wherein, in the compound of Formula I. one of four substituents of R^1 , R^2 , R^3 and R^4 must be C1-C3-alkylthio group, the other

substituents are independently H, R¹¹O-, R¹¹S-, halogen (F, Cl, Br), or C1-C3-alkyl;

R² and R³ taken together can be –SCH₂S-, –SCH₂O-, or –OCH₂S-;

 R^7 is

 $R^{13}R^{14}NCO-$,

 $R^{13}R^{14}NCS-$,

 $R^{13}R^{14}N(CR^{15})$ -,

R¹⁵OCO-,

R¹³CO-, or

Н;

 R^8 and R^9 are independently H, H_2N - or CH_3CONH -; and pharmaceutically acceptable salts thereof.

12. (original) The method of claim 11 wherein the compound of Formula I is selected from the group consisting of

4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-propylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-1-methyl-2-*n*-butylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-dihydro-2-ethylcarbamoyl-6-methylthiophthalazine, 4-(4-Aminophenyl)-1,2-

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dihydro-2-n-propylcarbamoyl-6-methylthiophthalazine, and 4-(4-Aminophenyl)-1.2-dihydro-2-

n-butylcarbamoyl-6-methylthiophthalazine.

13. (original) The method of claim 10 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative.

neuropsychopharmacological and functional disorders.

14. (original) The method of claim 11 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative.

neuropsychopharmacological and functional disorders.

15. (original) The method of claim 12 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative,

neuropsychopharmacological and functional disorders.

16-24. (cancelled)

25. (original) A method for treating a patient having a disorder associated with

excessive activation of the α -amino-3-hydroxy-5-methyl-4-isooxazoleproprionic acid (AMPA)

subtype of the ionotropic excitatory amino acid (EAA) receptors, the method comprising

administering to the patient, in an effective amount to alleviate the symptoms of the disorder, a

compound of Formula II:

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wherein

R¹, R², R³ and R⁴ are independently

Η,

НО,

R¹¹O-,

halogen (F, Cl, Br),

C1-C3-alkyl,

 CF_3 ,

 $R^{12}CO_2$ -,

 $R^{12} O_2 C_{-}$

R¹²CO-,

R¹²CONH-,

R¹²NHCO-,

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R¹²NHCO₂-.

R¹²OCONH-.

 $R^{12}O_2S_{-}$

R¹²OS-, or

 $R^{13}R^{14}N$ -; or

R¹ and R², or R² and R³, or R³ and R⁴ taken together can be

-SCH₂S-,

-SCH₂O-

-OCH₂S-

-SCH₂CH₂S-,

-SCH₂CH₂O-, or

-OCH₂CH₂S-;

wherein at least one of R¹, R², R³ and R⁴ must be a C1-C3-alkylthio group;

 R^5 is

Η,

C1-C6-alkyl,

C3-C6-alkenyl,

C3-C6-cycloalkyl,

phenyl or substituted phenyl, wherein the phenyl is substituted with one or two substituents selected from the group consisting of C1-C3-alkyl, halogen (F, Cl, Br),

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R^{11}O\text{-}, CF_3\text{-}, R^{12}O_2S\text{-}, R^{12}OS\text{-}, R^{12}CO, R^{12}CO_2\text{-}, R^{12}O_2C\text{-}, R^{12}CONH\text{-}, R^{12}NHCO\text{-}.
R<sup>12</sup>NHCO<sub>2</sub>-, R<sup>12</sup>OCONH, or R<sup>13</sup>R<sup>14</sup>N-:
R<sup>11</sup> is C1-C3-alkyl:
R<sup>12</sup> is H or C1-C3-alkyl;
R<sup>13</sup> and R<sup>14</sup> are independently
           Н.
           C1-C10-alkyl,
           C1-C6-perfluoroalkyl,
           C3-C10-alkenyl, or
           C3-C6-cycloalkyl; or
R<sup>13</sup> and R<sup>14</sup> taken together can be C3-C6-cycloalkyl;
R<sup>15</sup> is C1-C6-alkyl, C3-C6-alkenyl, or C3-C6-cycloalkyl;
R<sup>16</sup> and R<sup>17</sup> are independently
           Η,
           halogen (F, Cl, Br),
           C1-C3-alkyl,
          R^{12}O-.
          CF<sub>3</sub>-, or
          R^{12}CO_{2}-;
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R¹⁸ and R¹⁹ are independently

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Н.

 $R^{13}R^{14}N_{-}$

 $R^{13}HNC(NH)$ -, or

R¹²CONH-;

and pharmaceutically acceptable salts thereof;

wherein R¹⁸ and R¹⁹ cannot both be H,

in combination with a pharmaceutically acceptable carrier.

26. (original) The method of claim 25 wherein, in the compound of Formula II, one of four substituents of R¹, R², R³ and R⁴ must be a C1-C3-alkylthio group, the other substituents are independently H, R¹¹O-, R¹¹S-, halogen (F, Cl, Br), or C1-C3-alkyl;

R² and R³ taken together can be –SCH₂S-, –SCH₂O-, or –OCH₂S-;

R¹⁸ and R¹⁹ are independently H, H₂N-, or CH₃CONH-; and pharmaceutically acceptable salts thereof.

- 27. (original) The method of claim 26 wherein the compound of Formula II is selected from the group consisting of
- 1-(4-Aminophenyl)-6-methylthiophthalazine, 1-(4-Acetylaminophenyl)-6-

methylthiophthalazine, 1-(4-Aminophenyl)-7-methylthiophthalazine,

1-(4-Acetylaminophenyl)-7-methylthiophthalazine, 1-(4-Aminophenyl)-4-methyl-6-

methylthiophthalazine, 1-(4-Acetylaminophenyl)-4-methyl-6-methylthiophthalazine, 1-(4-

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Aminophenyl)-4-methyl-7-methylthiophthalazine, and 1-(4-Acetylaminophenyl)-4-methyl-7-

methylthiophthalazine.

28. (original) The method of claim 25 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative,

neuropsychopharmacological and functional disorders.

29. (original) The method of claim 26 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative,

neuropsychopharmacological and functional disorders.

30. (original) The method of claim 27 wherein the disorder is selected from the group

consisting of neurological, neuropsychological, neuropsychiatric, neurodegenerative,

neuropsychopharmacological and functional disorders.

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